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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,554	07/30/2003	Etsutaro Akagawa	H-1107	6530
24956	7590	03/15/2006	EXAMINER	
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.			CHOI, WOO H	
1800 DIAGONAL ROAD			ART UNIT	
SUITE 370			PAPER NUMBER	
ALEXANDRIA, VA 22314			2189	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,554	AKAGAWA ET AL.	
	Examiner	Art Unit	
	Woo H. Choi	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17, 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/3/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The Examiner suggests the following title: "Fault notification based on volume access control information."

Claim Objections

2. Claims 5, 6, 12 and 13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 5 and 12 replace the procedure for receiving volume access control information from storage devices with a procedure for receiving volume access control information from computers altering the scope of the subject matter claimed in the independent claim instead of further limiting the independent claim.

Claims 6 and 13 replace the procedure for receiving the passage control information from a connection device with a procedure for receiving the passage control information from the plurality of computers.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5 – 7 and 12 – 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. With respect to claims 5 and 12, while the specification discloses receiving volume access control information from the storage devices, as clearly shown in figure 2, it does not disclose receiving volume access control information from the plurality of computers.

5. With respect to claims 6 and 13, the specification discloses receiving passage access information from the connection devices but it does not disclose receiving passage access information from the plurality of computers.

6. With respect to claims 7 and 14, the specification does not disclose receiving managing person control information from the plurality of computers other than the management computer.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 3, 8 – 10, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani *et al.* (US Patent Application Publication 2001/0054093, hereinafter “Iwatani”) in view of Masahiro (Japanese Patent Publication No 2002-278905).

9. With respect to claims 1, 2, 8 and 17, Iwatani discloses a network system (figure 1) comprising

computers (host 2),

storage devices (storage device 4) for managing one or more volumes, said volumes being accessible by said computers through a SAN (storage area network), and

a management computer (1) connected to said computers and said storage devices, wherein:

each said storage device has a control unit (4a) for controlling input and output to and from the one or more volumes based on volume access control information for specifying one or more authorized computers from among the computers, said authorized computers being permitted to access the one or more volumes (figure 5, 5a, 5c); and

said management computer includes an interface for receiving a notice of a fault in the one or more volumes (figure 9, figure 10, S1) and said volume access control information from said plurality of storage devices (page 2, Paragraphs 36 and 37).

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However, Iwatani does not specifically disclose that the fault of said volume is notified to said computers which are permitted to access said volumes based on said volume access control information. On the other hand, Masahiro teaches a method of notifying a storage volume fault based on volume access control information.

Masahi discloses that it is desirable to notify a host of the fault condition of storage equipment (Masahi, paragraph 6 of translated version of Masahi's detailed description). Masahi further discloses that the use of access list prevents unnecessary notification to hosts that are not permitted access to volumes (paragraph 11). It would have been obvious to one of ordinary skill in the art, having the teachings of Iwatani and Masahi before him at the time the invention was made, to adopt the method of notifying a storage volume fault as taught by Masahi, in the system of Iwatani, in order to prevent waste of resources associated with sending unnecessary notices to hosts that cannot access the volume (paragraph 12).

10. With respect to claims 3, 9, 10 and 18, Iwatani discloses

a connection device (Iwatani, figure 1, 3) that has a control unit for controlling the input and output of data among interfaces based on passage control information (figures 5a, 5c, see also page 4, paragraph 58) defining the input and output of data among said interfaces.

The system that results from the combination of Iwatani and Masahi would result in the notification of faults to hosts based on the host access information and the access path information since accessibility of a volume in a storage device to a host depends on both.

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11. Claims 4 – 7 and 11 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani and Masahiro, as applied to claims 2 and 10, and further in view of Uchiyama *et al.* (US Patent Application Publication No. 2003/0172069, hereinafter “Uchiyama”).

12. With respect to claims 4 and 11, Iwatani and Masahiro disclose all of the limitations of the parent claims as discussed above. However, they do not specifically disclose using managing person control information along with volume access control information. On the other hand, Uchiyama discloses using managing person control information with volume access control information (see figures 3 – 5).

It would have been obvious to one of ordinary skill in the art, having the teachings of Iwatani, Masahiro and Uchiyama before him at the time the invention was made, to adapt Uchiyama’s user-by-user or host-by-host access control teachings in the system of Iwatani and Masahiro that notifies storage device fault conditions to hosts, to be able to control access to storage resources on a per user or per host basis (Uchiyama, page 1, paragraphs 5 and 6).

13. With respect to claims 5 – 7 and 12 – 14, access control information (Uchiyama, figures 3, 4, and 5) is received from computers (figure 1, 500) other than the management computer (figure 1, 300).

Response to Amendment

14. Various claims have been amended to overcome rejections under 35 USC 115, second paragraph. Corresponding rejections are withdrawn.

Response to Arguments

15. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

16. With respect to Applicant's argument regarding the combination, the arguments are still based on the individual references allegedly not teaching a certain claimed limitation. The test of obviousness is not what each of the references teaches or fails to teach. Rather, it is what the combined teachings of the references would have suggested to one of ordinary skill in the art. The rejections above clearly state why the claimed limitation would have been obvious in view of the combined teachings. Instead of discussing why the combination would not have resulted in the claimed limitation and why it would not have been obvious to combine the references, Applicant merely alleges that the combination does not teach a claimed limitation. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.


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Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (571) 272-4179. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Woo H. Choi
February 24, 2006